

Corrigendum

Slingshot-Cofilin activation mediates mitochondrial and synaptic dysfunction via $A\beta$ ligation to $\beta 1$ -integrin conformers

JA Woo, X Zhao, H Khan, C Penn, X Wang, A Joly-Amado, E Weeber, D Morgan and DE Kang

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Since the publication of this paper, the authors have noticed the y-axis label of Figure 7e was incorrect. It should

be % of the fESP slope. This has now been rectified and the corrected article appears in this issue together with this corrigendum.

The authors would like to apologize for any inconvenience this may have caused.

Figure 7 Cofilin reduction rescues APP/ $A\beta$ -induced gliosis and loss of synaptic proteins as well as LTP and contextual memory deficits in APP/PS1 mice. **(a and b)** Seven-month-old WT, APP/PS1, and APP/PS1;*Cofilin*^{+/-} mice immunostained for GFAP, Synapsin I, and PSD95. **(a)** Representative images showing that Cofilin reduction ameliorates astrogliosis and synaptic damage associated with APP/PS1 mice. **(b–d)** Quantification of mean PSD95 and Synapsin I intensities in the stratum lucidum (SL; *n* = 4 mice/genotype, 2 F and 2 M, ANOVA, *post hoc* Tukey, **P* < 0.05, #*P* < 0.0005). **(c–e)** Stimulating electrode placed in the Schaffer collaterals of the hippocampus and recording glass electrode positioned at the CA1 stratum radiatum below the pyramidal cell layer. **(c)** Input/output analysis generated by stepping up stimulation amplitude from 1 to 15 mV in WT, APP/PS1, and APP/PS1;*Cofilin*^{+/-} acute slices. No significant differences observed (*n* = 24 slices from four mice, APP/PS1: 19 slices from four mice, APP/PS1;*Cofilin*^{+/-}: *n* = 20 slices from three mice). **(d)** PPF showing no significant differences across genotypes and interstimulus interval except between APP/PS1;*Cofilin*^{+/-} and WT slices at the 40-ms interstimulus interval (two-way ANOVA, *post hoc* Bonferroni, **P* < 0.05; WT: *n* = 32 slices from four mice, APP/PS1: *n* = 31 slices from four mice, APP/PS1;*Cofilin*^{+/-}: *n* = 25 slices from three mice). **(e)** LTP induced by the TBS showing significant differences in fEPSP slope in APP/PS1 compared with WT and APP/PS1;*Cofilin*^{+/-} slices (two-way ANOVA, *post hoc* Bonferroni, *P* < 0.0001 at all time points). (WT: *n* = 28 slices from four mice, APP/PS1: *n* = 33 slices from four mice, APP/PS1;*Cofilin*^{+/-}: *n* = 20 slices from three mice). Error bars represent S.E.M. **(f)** Percentage of time spent freezing during training period on day 1 (no significant differences observed by one-way ANOVA or Kruskal–Wallis statistic; WT *n* = 12, APP/PS1 *n* = 8, APP/PS1;*Cofilin*^{+/-} *n* = 6; equal distribution of gender). Error bars represent S.E.M. **(g)** Percentage of time spent freezing during contextual fear conditioning (FC) on day 2 (Kruskal–Wallis statistic = 9.66, *P* = 0.008, genotypes = 3, values = 26; *post hoc* Dunn's, **P* < 0.05; WT *n* = 12, APP/PS1 *n* = 8, APP/PS1;*Cofilin*^{+/-} *n* = 6; equalized distribution of gender). **(h)** Percentage of time spent freezing during cued fear conditioning (FC) freezing on day 2 (no significant differences observed by one-way ANOVA or Kruskal–Wallis statistic; WT *n* = 12, APP/PS1 *n* = 8, APP/PS1;*Cofilin*^{+/-} *n* = 6; equalized distribution of gender). **(i)** Total time spent on rotarod test (no significant differences observed by one-way ANOVA or Kruskal–Wallis statistic; WT *n* = 11, APP/PS1 *n* = 7, APP/PS1;*Cofilin*^{+/-} *n* = 5; equalized distribution of gender). **(j)** Total distance traveled during open-field test (no significant differences observed by one-way ANOVA or Kruskal–Wallis statistic; WT *n* = 11, APP/PS1 *n* = 7, APP/PS1;*Cofilin*^{+/-} *n* = 5; equalized distribution of gender). **(k)** Total time spent immobile during open-field test (no significant differences observed by 1-way ANOVA or Kruskal–Wallis statistic; WT *n* = 11, APP/PS1 *n* = 7, APP/PS1;*Cofilin*^{+/-} *n* = 5; equalized distribution of gender)

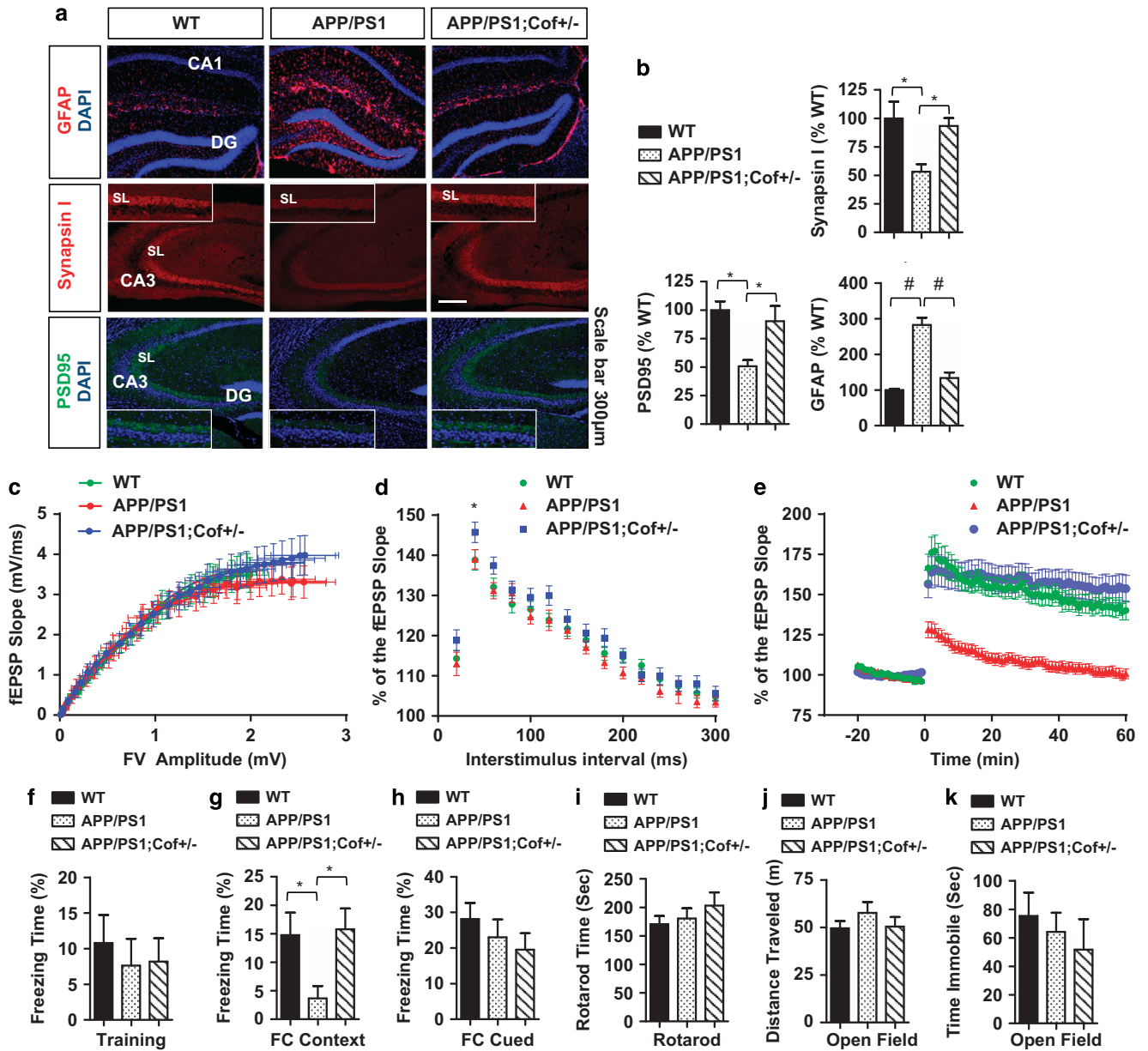


Figure 7 For caption see previous page